

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001237720001-8

An Ultrasonic Impulse-Type Flaw Detector. J. Chlupaz
(Zuradie, 1957, 6, (3), 72-76). [In Slovak]. The design
and possible applications of an instrument of recent Czechoslovak
manufacture are discussed.—p. 7

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CIA-RDP86-00513R001237720001-8"

1704. CZECHOSLOVAK ULTRASONIC PULSE-TYPE FLAW

DETECTOR, TYPE UUD 1. *[Signature]*

Slaboproudý Československý věstník, Vol. 18, No. 12, 670-87 (1967). In Czech.

The instrument comprises a master pulse generator which drives an rf pulse transmitter, the latter feeds into an ultrasonic transducer which applies microsecond rf pulses to the tested material. The rf pulses reflected from the material are picked up by the case of the auxiliary transducer and are then amplified by the variable增益器. The master pulser drives also the time base, a time-marker generator and an electronic switch. The instrument operates at frequencies of 2.5, 5, 10, 20, 50, 100 and 200 MHz and is calibrated with a standard of 100 mm thickness.

The instrument has a resolution of 0.05 mm and a depth of penetration of 12 mm. The frequency range of operation is the spectrum of 2.5-200 MHz. The time base has settings of 20, 100, 200 and 500 microseconds. The time-marker generator has settings of 10, 20, 50 and 100 microseconds. The electronic switch has settings of 10, 20, 50 and 100 microseconds. The instrument is supplied with a power supply and a carrying case. Its performance are given. The paper contains 19 references.

R. D. Sidorowicz

41388

18.8200

Z/032/62/012/010/001/002
E160/E435

AUTHORS: Obraz, J., Engineer, Candidate of Sciences,
Vetiska, A., Engineer, Doctor Candidate of Sciences

TITLE: New methods for the determination of elastic moduli
[E, G and the Poisson's ratio] of materials

PERIODICAL: Strojírenství, v.12, no.10, 1962, 768-773

TEXT: A new method, using ultrasonic pulses, is described which is suitable not only for homogeneous but also heterogeneous materials, the latter category being represented by cast iron. In suitable cases this method can be applied to finished machine components. One of the advantages is that standard equipment, normally used for detecting defects inside a material, is employed. Large samples are more suitable; in cases of small samples or at elevated temperatures distance bars are used. Final computations of elastic moduli and Poisson's ratio are based on the equations where these constants are expressed in terms of density and longitudinal and transverse velocities of propagation of ultrasonic waves. These velocities are determined as follows: pulses are sent longitudinally or transversely through the sample and the

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Z/032/62/012/010,001/002
E160/E435

New methods for the determination ...

original pulses as well as their reflections are displayed on the screen of the standard equipment for detecting faults in materials. Propagation velocity can be determined either directly from such a recording, provided an accurate time base is available, or by comparison with some medium of known ultrasonic velocity. In cases where transverse velocity cannot be determined directly, use is made of transformation of longitudinal into transverse waves. Samples of special shape can sometimes be made (semi-circular section) which facilitate such determination. In cases where special or suitable samples cannot be made, surface waves are measured instead of transverse ones (e.g. in sheet metal). Sharp edged obstacles are lightly pressed on the surface of the material at suitable intervals apart and at right angles to the path of the ultrasonic surface wave. The relation is given expressing the surface ultrasonic wave velocity in terms of Poisson's ratio and the transverse velocity. In the case of circular bars both longitudinal and transverse velocities are obtained simultaneously. Due to a certain amount of divergence in the initiating longitudinal beam, a part of it falls on the cylindrical portion

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New methods for the determination ... E160/E435

and proceeds at an angle across the bar as a transverse pulse. This can be separated on the display screen from the longitudinal pulse since it takes longer to travel the length of the bar. The authors have carried out comparison tests using eleven samples of cast iron of varied quality and the resonance method for checking the ultrasonic wave method. Generally, the results agreed within \pm 7%. Calculation procedure for the moduli is given for one of the samples. There are 9 figures and 2 tables.

ASSOCIATIONS: SVUTT, Prague (Obraz, J.)
VUT, Brno (Vetřka, A.)

Card 3/3

OBRAZ, J., inz., CSc., laureat statni ceny Klementa Gottwalda

Contribution to the evaluation of supersonic diffraction.
Strojirenstvi 13 no.9:693-697 S '63.

1. Statni vyzkumny ustav tepelne techniky, Praha.

OBRAZ, Jaroslav, inz. CSc.

Continuous supersonic analyzers of liquid mediums. Automatizace
7 no. 7:176-178 Jl '64.

1. State Research Institute of Heat Technology, Prague.

OBRAZ, Jaroslav, inz. CSc.

Czechoslovak supersonic apparatus for defectoscopy. Tech praca
17 no.3:174-176 Mr '65.

1. State Research Institute of Heat Technology, Bechovice.

L 31765-66 EWP(c)/EWP(k)/T/EWP(v)/EWP(1) LJP(c)
ACC NR: AP6021704 SOURCE CODE: CZ/0032/66/016/001/0063/0069

AUTHOR: Obraz, J.—Obraz, Ya. (Engineer, Candidate of sciences)

ORG: State Research Institute of Machine Building, Bechovice (Statni vyzkumny ustav pro stavbu stroju)

TITLE: Equipment for automatic ultrasonic inspection of heavy plates

SOURCE: Strojirenstvi, v. 16, no. 1, 1966, 63-69

TOPIC TAGS: ultrasonic inspection, metal inspection

ABSTRACT: The principles and design are described of automatic equipment for the ultrasonic inspection of heavy plates up to 500 mm thick. A similar equipment has been developed for plates 5 to 30 mm thick. The equipment compensates automatically the differences in the surface roughness as well as in the height of the ultrasonic echo which decreases with increasing plate thickness. Orig. art. has: 10 figures and 12 formulas. [JPRS]

SUB CODE: 11 / SUEM DATE: none / ORIG REF: 004 / SOV REF: 001
OTH REF: 002

Card 1/1 PB

UDC: 669-413:620.179.16

ACC NR: AP7004411

(A)

SOURCE CODE: CZ/0032/67/017/001/0045/0050

AUTHOR: Obraz, J. (Engineer, Candidate of sciences)

ORG: State Research Institute for Machine Building, Bechovice (Statni vyzkumni ustav pro stavbu stroju)

TITLE: Ultrasonic pulse flow meter

SOURCE: Strojirenstvi, v. 17, No. 1, 1967, 45-50

TOPIC TAGS: flow meter, measuring instrument, hf pulse

ABSTRACT: An ultrasonic pulse flow meter has been developed, which can be used even where aggressive or turbid liquids are involved. It has been tested in pipes from 0.2 up to 2 meters in diameter with flow at 0.2 to 4 m/sec measuring the flow by indicating the time difference between pulses passing through the stream with the current and against it. The principle of this flow meter is illustrated by a series of equations based on passing ultrasonic waves alternately through two channels to electroacoustic transducers and comparing elapsed times with calibrated frequencies. The effect of turbulence at various Reynolds numbers if expressed in equations cited from American, Russian and German authors, and flow rates found by pulse meters were 4 to 8% higher than actual speeds. Mean flow rates in constant streams based on asymmetrical time readings are discussed to derive an equation for probable error, particularly with small tubes and in liquids with high ultrasonic wave velocities. Electronic cir-

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ACC NR: AP7004411

cuits used to produce high-frequency pulses are described as important when measuring flow in power generating equipment, where pulse flow meters at 4 MHz are used in pipes up to 1 meter diameter and at 2 MHz in those up to 2 meters diameter. Accuracy tests with the new ultrasonic pulse flow meter are described. They indicated a relative error factor of 0.5 to 1.5% with less deviation when metering high flow rates. Paper presented by O. Taraba, Docent, Engineer, and Candidate of sciences. Orig. art. has: 20 formulas and 5 figures.

SUB CODE: 14/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 004/ SOV REF: 002

Card 2/2

OBRAZ, KAREL

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application - Ceramics, Glass, Binders,
Concrete.

H-13

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8756

Author : Frank Jaroslav, Obraz Karel

Inst :

Title : Container Glass for Canning Factories.

Orig Pub : Sklar a keramik, 1957, 7, No 4, 110-112

Abstract : In manufacturing modern container glass it is necessary to take into account the technological process of canning and the stresses to which are subjected the glass jars in the course thereof. The jars are subjected to the greatest stresses during the process of sterilization. The conditions of annealing of the glass must ensure the elimination of internal stresses above 95 m⁴/cm. Problems are considered which relate to design of jar necks, types of covers and color of glass depending on the nature of the preserved products.

Card 1/1

OBRAZ, Karel

Standardization of the tests of glass-containers. Sklar a
keramik 12 no.1: 22-23 Ja '62.

1. Vyrobní hospodarska jednotka Obalove a lisovane sklo, Dubi

OBRAZ, Karel

Standardization of the quality of bottles. Sklar a keramik
12 no.7:228-229 J1 '62.

1. Výrobní hospodarska jednotka Obalove a lisovane sklo, Dubi
v Krusnych horach.

OBRAZ, Karel

The new in widemouthed bottles. Sklar a keramik 14 no.12:354-354
D. '64.

1. Obalova a lisovani sklo, Dubi.

OBRAZ, K.I. (Velikiye Luki)

Hand-made slide rule. Mat. v shkole no. 4:67-69 Jl-Ag '54. (MIRA 7:?)
(Slide rule)

OBRAZ, K.I. (Velikiye Luki)

Device for demonstrating a direct and inverse function. Mat. v
shkole no.6:24-25 N-D '54. (MLRA 7:11)
(Geometry) (Functions)

22(1)

SOV/3-59-5-5/34

AUTHOR: Obraz, K.I., Instructor

TITLE: Our Readers Suggest

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 3, pp 28 - 29
(USSR)

ABSTRACT: Nr 3 of this periodical contained D.I. Vasil'yev's article "Correspondence and Evening Education Needs: New Organizational Forms". In it the writer expressed his views on the methods of a further development of education without giving up one's job and its organization with a resident vuz as a base. These problems are also dealt with in the suggestions of instructor K.I. Obraz, and Docents I.P. Dolgiy and A.B. Shafibekov. K.I. Obraz proposes to unify to some extent the curricula of the first 2 to 3 courses, as well as the programs of the general scientific cycle (mathematics, physics, theoretical mechanics, chemistry, etc.), thus giving

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SOV/3-59-5-5/34

Our Readers Suggest

correspondence students the possibility to visit any training-consultation point (UKP) if the correspondence institute of which he is a student has no UKP on the spot.

ASSOCIATION: Velikolukskiy pedagogicheskiy institut (Pedagogical Institute of Velikiye Luki).

Card 2/2

OBRAZ, K.I.

Simplified slide rule for classroom demonstrations. Uch. zap.
Velikoluk. gos. ped. inst. no.16:88-92 '61. (MIRA 16:7)

(Mathematics—Study and teaching)

OBRAZ, K.I.

Some methodological manuals on slide rules. Uch. zap. Velikoluk.
gos. ped. inat. no.16:105-117 '61. (MIRA 16:7)

(Slide rule)

OBRAZ, Konstantin Ivanovich; EPPEL', Boris Sergeyevich. Prinimal
uchastiye KOLDASHEV, A.M.; LEPESHKINA, N.I., red.; KORNEYEVA,
V.I., tekhn. red.

[The slide rule in secondary school; a textbook for teachers]
Logarifmicheskaya lineika v srednei shkole; posobie dlja
uchitelei. Moskva, Uchpedgiz, 1962. 126 p. (MIRA 16:1)
(Slide rule)

OBRAZKOV, V. I., Engineer

"Experiment of Using Mathematical Modeling in Water-Power Calculations." Sub 9
Nov 51, Moscow Order of Lenin Power Engineering Inst imeni V. I. Molotov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

VASIL'YEVA, A.N.; GAMAYUNCVA, A.P.; GOLOSKOKOV, V.P., kand. biol.
nauk; KARMSHEVA, N.Kh.; KOROVIN, Ye.P.; OBRAZOVA, A.;
ROLDUGIN, I.I.; SEMIOTROCHEVA, N.L.; FISYUN, V.V.; PAVLOV,
N.V., akademik, glav. red.; SUVOROVA, R.I., red.; ALFEROVA,
P.F., tekhn. red.

[Flora of Kazakhstan] Flora Kazakhstana. Glav. red. N.V. Pavlov.
Sost. A.N. Vasil'eva i dr. Alma-Ata, Izd-vo Akad. nauk Kazakh-
skoi SSR. Vol.6. 1963. 462 p. (MIRA 16:6)

1. Akademiya nauk Kazakhskoy SSR(for Pavlov).
(Kazakhstan--Botany)

OBRAZOVSKIY, A. S.

"Obtaining Water From Rivers With Floating Ice by Means of Water-Receiving Buckets." Sub 17 Mar 47, Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No. 457, 18 Apr 55

OBRAZOVSKIY, A. S.

Obrazovskiy, A. S. - "On the problem of operating water-intake equipment in ice-bearing rivers," Trudy Gidravl. laboratorii (Vsesoyuz. nauch.-issled. inst vodosnabzheniya, kanalizatsii, gidrotekhn. sooruzheniy i inzh. hidrogeologii), Symposium 2, 1948, p. 102-24

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

~~BRIZOVSKIY A.S.~~, kandidat tekhnicheskikh nauk, starshiy nauchnyy sotrudnik.

Generalized law of the circulation of liquids. Trudy gidrav.lab.
VODGEO no.3:4-12 '52. (MIRA 9:10)
(Hydraulics)

OERAZOVSKIY, A.S., kandidat tekhnicheskikh nauk, starshiy nauchnyy sotrudnik.

Chain function for open flow and its main consequences. Trudy gidrav.
lab. VODGEO no.3:13-25 '52. (MIRA 9:10)
(Hydraulics)

OBRAZOVSKIY, A. S.

OBRAZOVSKIY, A.S., kandidat tekhnicheskikh nauk.

Calculating the combined depth of a jump occurring at trapezoidal
dampers. Gidr.stroi. 23 no.5:30-33 '54. (MLB 7:6)
(Hydrodynamics)

124-57-1-684

Translation from Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 88 (USSR)

AUTHOR: Obrazovskiy, A.S.

TITLE: Application of an Exponential Relationship to the Construction of a Model of the Structural Mechanism of an Open Turbulent Flow (Primeneniye stepennoy zavisimosti k postroyeniyu modeli strukturnogo mekhanizma otkrytogo turbulentnogo potoka)

PERIODICAL: Tr. gidravl. labor. Vses. n.-i. in-ta vodosnab., kanaliz., gidrotekhn. sooruzh i inzh. hidrogeol., 1955, Nr 4, pp 89-118

ABSTRACT: Starting from the presence in a turbulent free-surface flow of ascending and descending currents, the author constructs a (schematic) structural model of a similar flow by dividing the flow into a system of longitudinal vertical segments, in which either ascending currents only or descending currents only take place. Hydrodynamically such alternation is unthinkable, since along the contact surfaces between adjacent ascending and descending strata circulations (about longitudinal axes) will of necessity develop. Furthermore, it is known from direct observation that alternation of ascending and descending

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124-57-1-684

Application of an Exponential Relationship (cont.)

currents may occur along a parent flow but not across it. The author determines the fields of ascending and descending flows, starting from the widely used exponential relationship

$$U = U_0 \eta^n$$

which corresponds fairly well to the real velocity profile (except at points close to the bottom). Aside from the marginal conditionality of the model, it affords approximate agreement with tests in several respects. The author indicates that the idea for such a model is due to the late N. M. Bernadskiy.

M. A. Velikanov

1. Turbulent flow--Model test results 2. Turbulent flow--Theory

Card 2/2

SOV/124-58-3-2905

Translation from: Referativnyy zhurnal. Mekhanika, 1958, Nr 3, p 50 (USSR)

AUTHOR: Obrazovskiy, A. S.

TITLE: The Increase in the Spreading of Streams Beyond Dam Buttresses by Means of a Broken-contour Apron (Usileniye rastekaniya struy za bykami plotiny pri pomoshchi lomanoy vodobojnoy stenki)

PERIODICAL: Tr. Gidravl. labor. Vses. n.-i. inst vodosnab., kanaliz., gidrotekhn. sooruzh. i inzh. gidrogeol., 1957, Nr 5, pp 50-57

ABSTRACT: In locating the components of a hydroelectric power plant in the buttresses of a low-head dam, their width was designed to equal 12 m and the width of the spans 22 m. The planned configuration of the unit was verified on a 1:100-scale model in free flow and to a scale of 1:50 in a test basin. Experimental investigations showed that during release of flood waters, with the hydroelectric power plant not in operation, eddy zones with return currents are formed beyond the buttresses of the dam, which leads to an uneven discharge of the stream into the tail water and to localized erosion. To ensure a sufficiently even distribution of specific flow discharges at the outlet from the

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SOV/124-58-3-2905

The Increase in the Spreading of Streams Beyond Dam Buttresses (cont.)

apron, an apron with a broken-line plan form was selected.

V. V. Fandeyev

Card 2/2

OBRAZOVSKIY, A.S., kandidat tekhnicheskikh nauk.

On the mechanism of suspended drift material in a uniformly
turbulent stream. Trudy Gidrav. lab. VODGEO no.5:63-78 '57.
(Hydraulics) (MIRA 10:8)

OBRAZOVSKIY A.S.

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Calculating local increase in specific flow over the down apron
of spillway dams. Gidr.stroi.26 no.12:22-24 D '57. (MIREA 10:12)
(Dams)

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Local increase in the specific discharge of open streams in sections
with suddenly widening boundaries. Trudy Gidrav.lab.VODGEO no.7
5-49 '59. (MIREA 13:8)

(Hydraulics)

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Distribution of local averaged velocities and tangential turbulent
stresses at different depths. Trudy Gidrav.lab.VODGE no.7:
50-70 '59. (MIRA 13:8)
(Hydraulics)

OBRAZOVSKIY, A.S.; SKVORTSOVA, I.P., red. izd-va; RODIONOVA, V.M.,
tekhn. red.

[Hydraulics of water-intake reservoirs] Gidravlika vodopri-
emykh kovshei. Moskva, Gosstroizdat, 1962. 194 p.
(MIRA 15:9)
(Intakes (Hydraulic engineering))

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Changes caused by slush ice jams in the discharges of water in
long canals with gravity flow. Trudy Gidrav.lab.VOLGEO no.8:5-26
'62. (MIRA 15:11)
(Ice on rivers, lakes, etc.)

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Determination of the calculated velocities in gravity flow and
siphon pipes of stream water intakes. Trudy Gidrav.lab.VODGEO
no.8:99-121 '62. (MIRA 15:11)
(Intakes (Hydraulic engineering))

OBRAZOVSKIY, A.S.; OSENKO, L.M., red.izd-va; KOROBKOVA, N.I.,
tekhn. red.

[Hydraulics of underwater culvert inlets] Gidravlika zatop-
lennykh vodopriemnykh ogolovkov. Moskva, Gosstroizdat,
1963. 101 p.
(Culverts) (Hydraulic engineering)

OBRAZOVSKIY, A.S., kand.tekhn.nauk

Precipitation of suspended matter in an intake installation
enclosed by protective dams. Vod. i san. tekhn. no.5:14-18 My
'63. (MIRA 16:6)
(Silt) (Intakes (Hydraulic engineering))

OBRAZOVSKIY, A.S.; VOYN-SIDOROVICH, G.B., inzh.

Study of riparian and insular floodable self-washing water-intakes. Trudy Gidrav. lab. VODGEO no.10:159-179 '63.
(MIRA 17:8)

OBRAZTSOV, A., arkitektor

Tomorrow of the collective farm village. Nauka i zhizn' 27
no.9:24-27 S '60. (MIRA 13:9)
(Housing, Rural) (City planning)

SEREБRYAKOV, S., doktor ekon.nauk; KARTASHOVA, K., arkitektor;
OBRAZTSOW, A., arkitektor; FEL'DMAN, I., kand.nauk;
SHAKULOV, S., kand.ekon.nauk

Shopping centers in cities. Sov.torg. 33 no.7:7-11
J1 '60. (MIRA 13:7)
(Shopping centers)

KARTASHOVA, K., arkhitektor; OBRAZTSOV, A., arkhitektor

Organization of public services in the Novosibirsk science
center. Na stroi. Ros. 3 no.5:8-11 My '62. (MIRA 15:9)
(Novosibirsk—City planning)

OBRAZTSOV, A. A.

29750

Nauchnyy osnovy travopol'noy sistemy zemlyedelyiya i zadachi agronomov v usloviyakh travopol'nykh sygvooborotov. v sb: Michurinskaya Nauka-vsi-kh. Proizvodstvo. Novosibirsk, 1949, s. 74-103

SL: LFTOPIS' NO.40

OBRAZTSOV, A., KRASIKOV, Z. and SMIRNOV, N.
A

"Reclaiming the New Lands Properly," published in - An Aid to Agricultural
Specialists in the Reclamation of Virgin and Fallow Lands, Sbornik Materialov i
Statey, Vol. 1, pp 25-144, 1954.

Smirnov - Director of Novosibirsk Agric, Inst.

Translation No. 431, 30 Jun 1955.

- OBRATSOV, A.A.

USSR/Cultivated Plants - Grains.

L-2

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69227

Author : Obraztsov, A.A., Bashegurova, M.I.

Inst :

Title : Effect of Soil Cultivation on Corn Yield.

Orig Pub : Tr. Novosibir. s.-kh. in-ta, 1956, 10, 73-83

Abstract : Based on 2 years' observations by the department of agro-chemistry the widest clogging of soil by weeds occurs in unbanked ploughing to a depth of 40 cm and the minimal one at the usual autumnal ploughing to a depth of 20 to 22 cm. At the end of the vegetative period the content of nitrates in soil at a depth of 20 cm was higher on portions of deep unbanked ploughing, which also helped conserve more moisture in the soil. The maximal yield of green mass (159.3 centners/hectare) was obtained on an unbanked ploughing section, a single cultivation by a shallow plough without a mold board and by rolling.

Card 1/2

Card 2/2

QURAZ TSOV, H.I.

661.315.612.2 : 537.226.31 /
1887. DEPENDENCE OF DIELECTRIC LOSSES IN CERAMIC
MATERIALS ON ELECTRIC FIELD INTENSITY I.R. Dalgym and

A.I. Qurnatov

In USSR FIZ. Vuz 30 No 4 (1977) 15-19.
Variation of dielectric losses for substances like "ultrafine porcelain", porcelain, stoneware and other ceramic materials at radio-frequency can be represented by the formula $\tan \delta = \delta_0 + \delta_1 E + \delta_2 E^2$, where E is the electric field intensity about $300^{\circ}K$. Dielectric losses in these ceramics change very little or not at all with increasing field intensity. In substances which show some slight variation of $\tan \delta$ with E , that is, may be observed at relatively low temperatures. Empirical formulae are given for dependences $\tan \delta - f(E)$.

? Kruglyuk

2 1PM

Chuvalo 22

Dependence of dielectric losses in ceramic materials on
the voltage of the alternating current applied to the
dielectric. (1951)

T 15

4
4E2c
114
4E3d

113

NAKROKHIN, B.O.; SHIBANOV, G.V.; GINEVICH, G.I.; OBRAZTSOV, A.I.;
MATROS, Yu.Sh.; SKUE, G.I.; NAKROKHIN, V.B.; ITENBERG, Sh.M.;
RASHRAGOVICH, Kh.D.

Oxidation of methanol to formaldehyde on oxide catalysts.
(MIRA 18:4)
Khim. prom. 41 no.2:17-19 F '65.

OBRAZTSOV, A.L.; STRIZHIKOZA, S.I.; CHAZOV, V.N.

Experimental burning of natural gas without sufficient air
supply. Gaz. prom. 6 no.12:27-28 '61. (MIRA 15:2)
(Gas, Natural)
(Gas burners)

OBRAZTSOV, A.L., inzh.; STRIZHIKOZA, S.I., inzh.; CHAZOV, V.N., inzh.

Roasting to magnetize bog iron ores in a fluidized bed with
products from the incomplete combustion of natural gas. Gor.
zhur. no.8:63-65 Ag '62. (MIRA 15:8)

1. Krasnodarskiy filial Vsesoyuznogo neftegazovogo nauchno-
issledovatel'skogo instituta (VNIINeft').
(Iron ores) (Magnetic separation of ores)

OBRAZTSOV, A. P.

Packaging

For higher quality packing, Leg. prom., 12, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~4~~² Unc1.

OBRAZTSOV, A. P.

"Establishing a Rational Schedule of Operation for Mine Elevators With Asynchronous Drive, By Means of Contactor and Throttle Operation." Cand Tech Sci, Inst of Mining, Acad Sci USSR, 17 Dec 54. (VM, 8 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

OBRAZTSOV, A. P., D. A. DENISOV and V. S. KRAVCHENKO

"The Application of Magnetic High-frequency Fields for the Breakdown
Up of Quartzites From the Anomalous Magnetic Ores From Kursk and From Ores
of Other Sites."

report presented at the Conference in the Mining Inst. AS USSR on Problems
of Rock Disintegration, 20-22 May 1958.
(Vest. AN SSSR, No. 3, 1958, pp. 130-132)

KRAVCHENKO, V.S., doktor tekhn.nauk; OBRAZTSOV, A.P., kand.tekhn.nauk;
USTIMOV, V.V., inzh.

Dust-free rock breaking by electric methods. Gor.zhur. no.9:
42-45 S '60. (MIHA 13:9)

1. Institut gornogo dela AN SSSR, Lyubertsy, Moskovskoy oblasti.
(Ore dressing) (Electric cutting machinery)

KRAVCHENKO, V.S., doktor tekhn.nauk; OBRAZTSOV, A.P., kand.tekhn.nauk;
SEMENOV, V.M., kand.tekhn.nauk; KLEYMELOV, Ye.I., inzh.; TRIFONOVA,
M.G., inzh.

Use of high-frequency currents for unloading frozen ores. Zhel.dor.
transp. 42 no.11:63-64 N '60. (MIRA 13:11)
(Ore handling) (Induction heating)
(Railroads---Freight---Cold weather operations)

ITSKHAKIN, V.D.; OBRAZTSOV, A.P.

Rock breaking with the help of a high-frequency electromagnetic
field. Obog. rud. 8 no.2:13-15 '63.
(MIRA 17:2)

- OBRAZTSOV, A.S.

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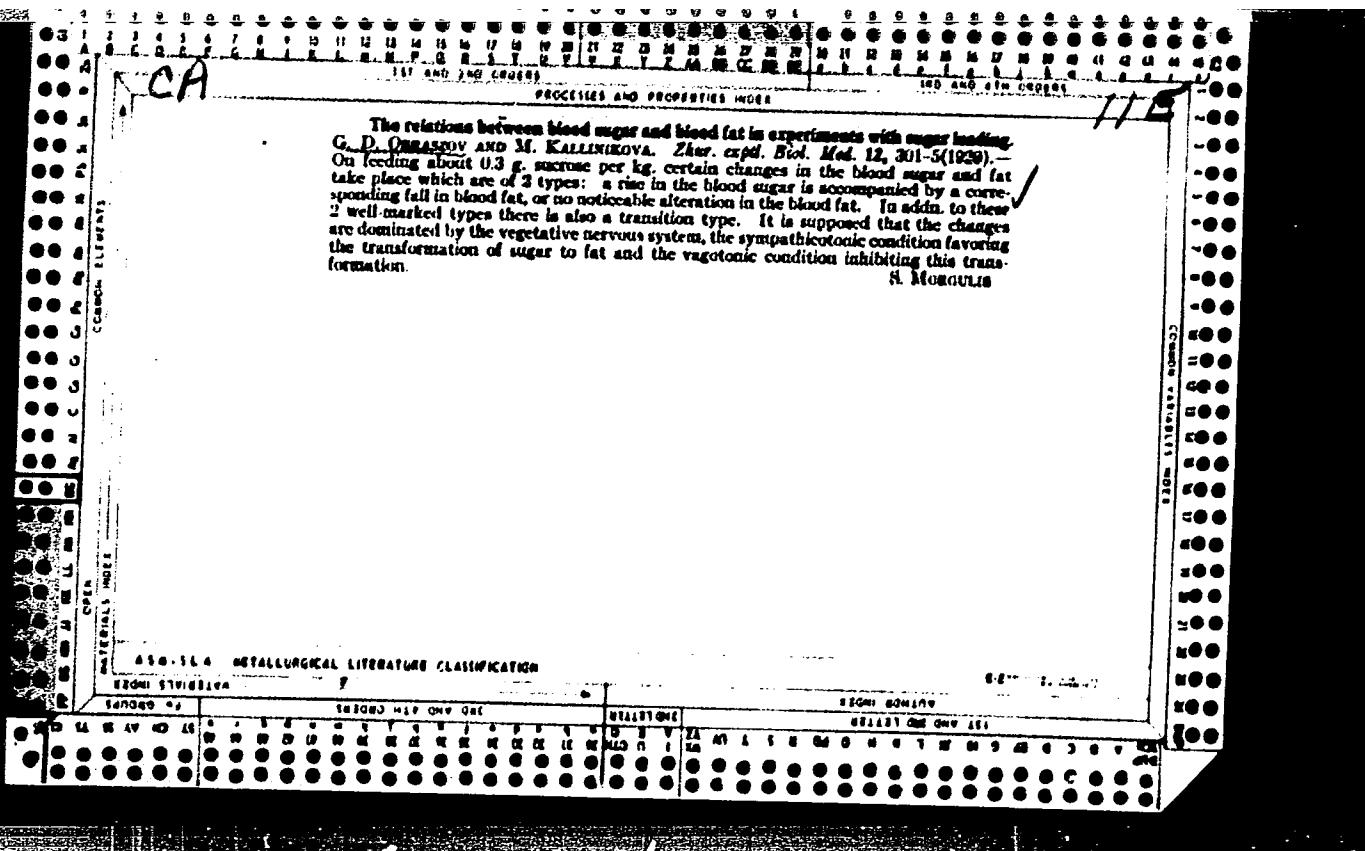
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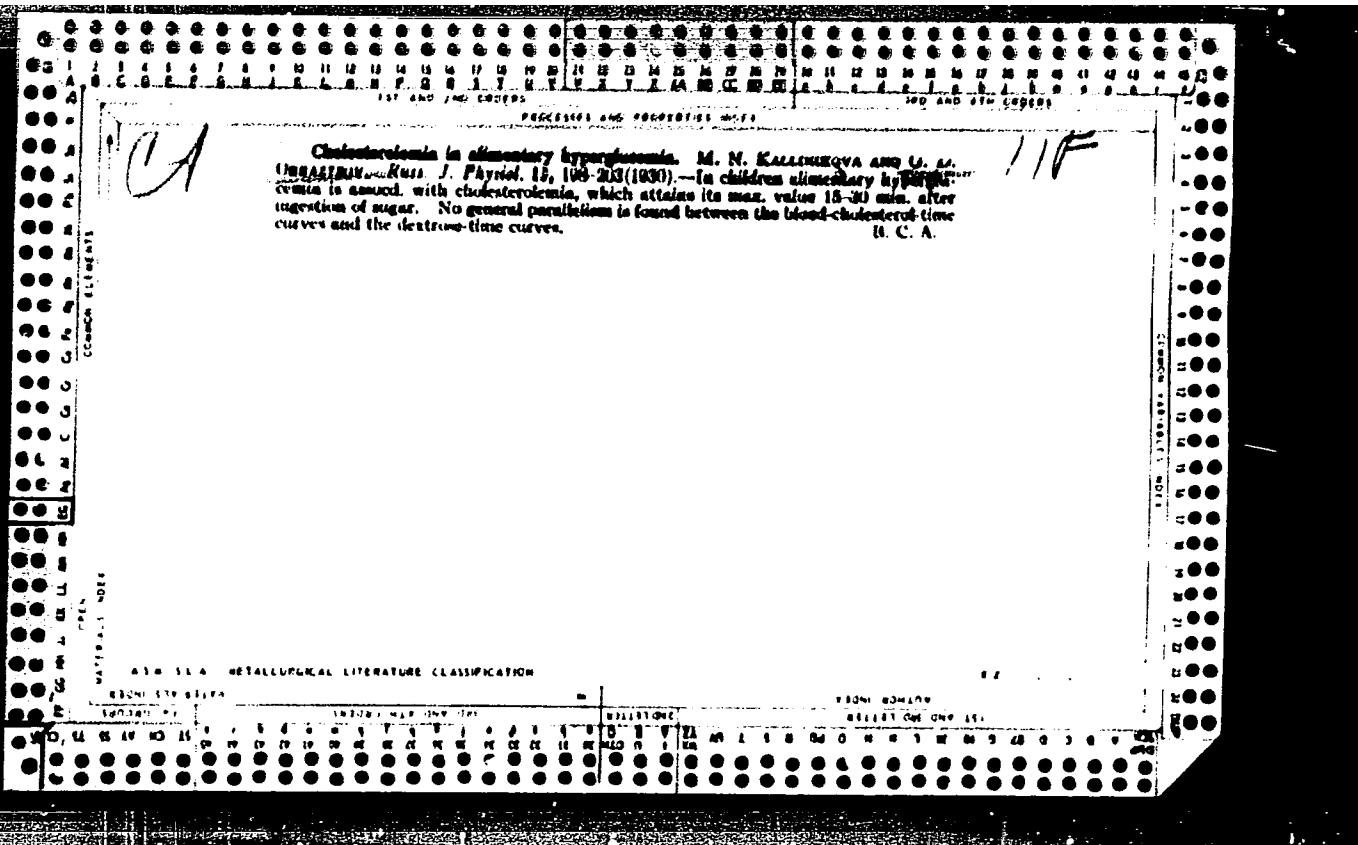
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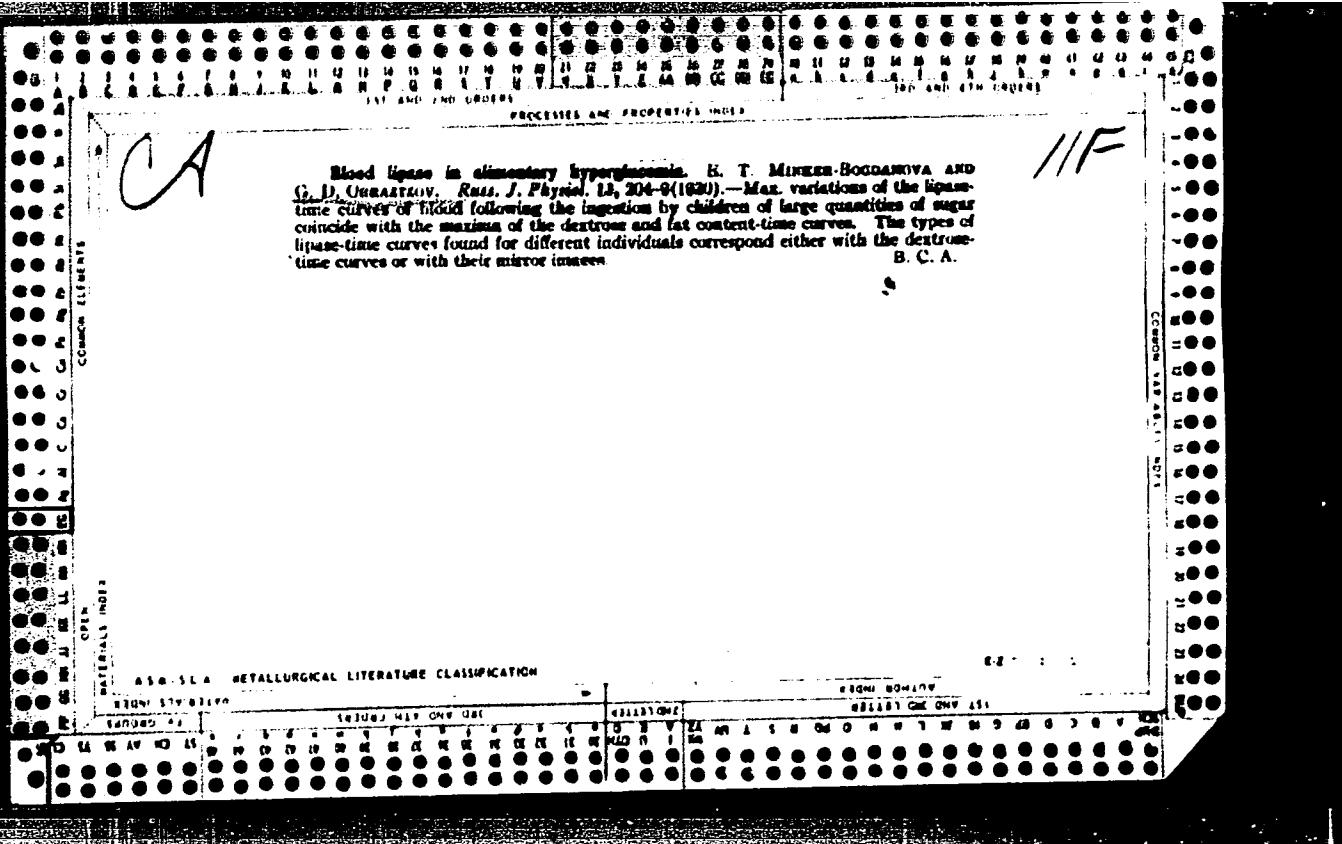
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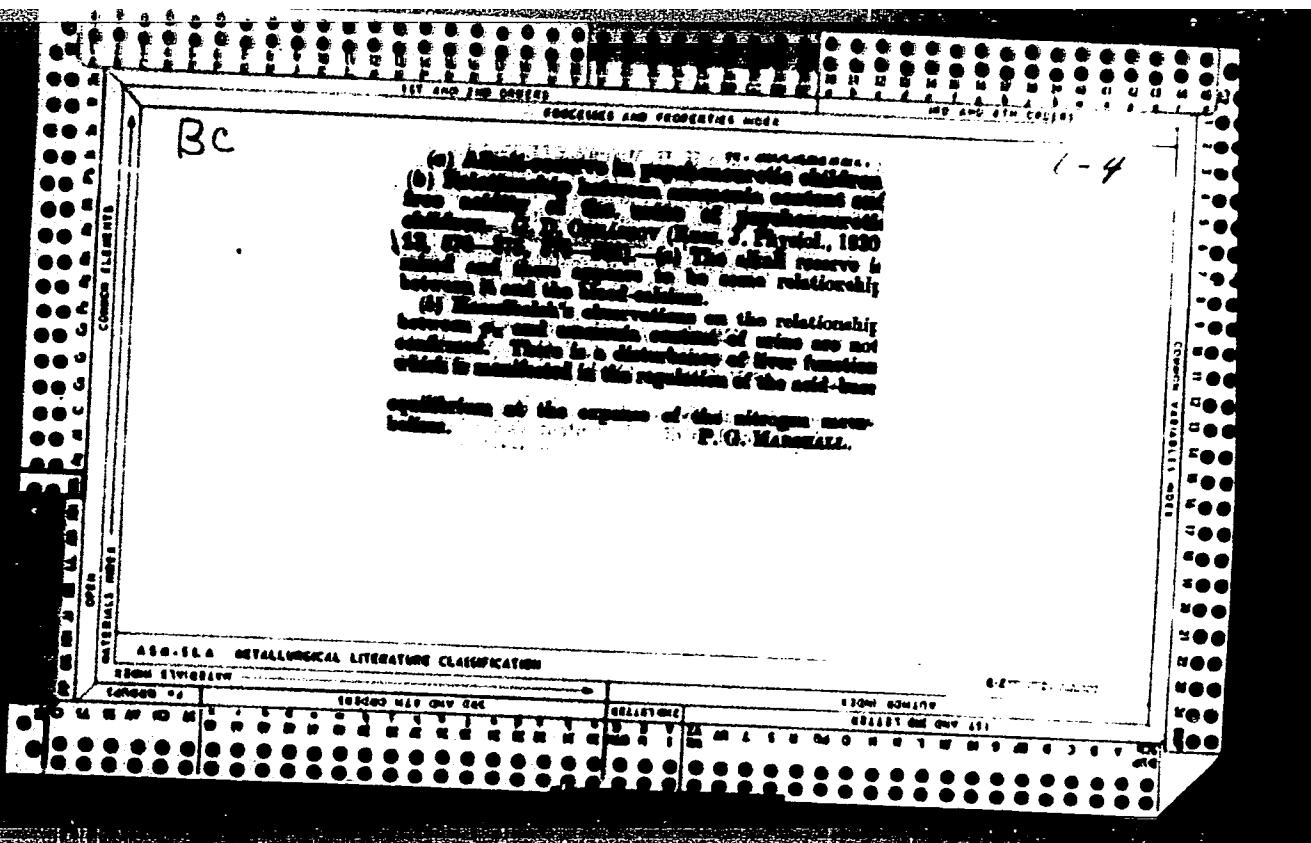
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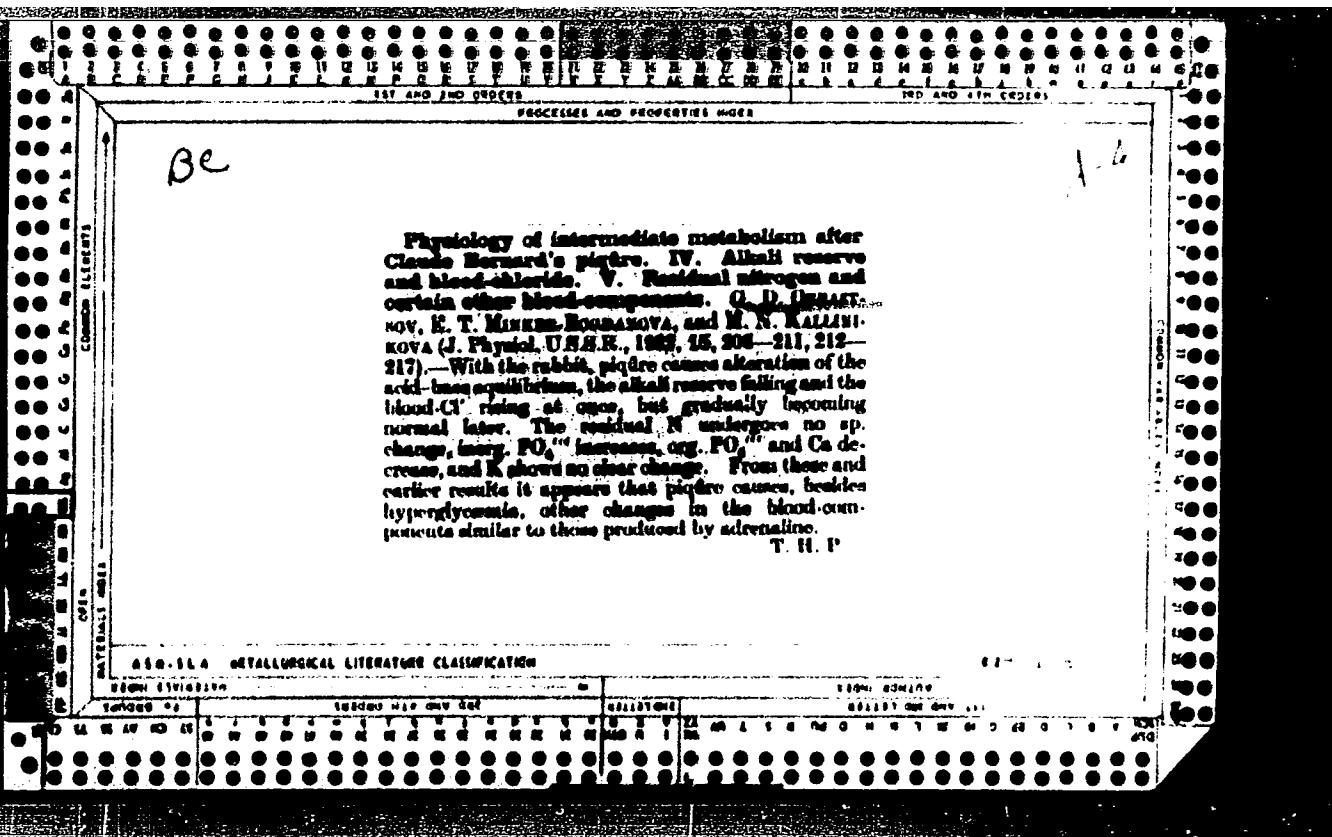
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(Differential equations)

PLAISE I BOOK EXPLOITATION

SOV/3784

Obraztsov, Ivan Filippovich

Metody rascheta na prochnost' kessonnnykh konstruktsiy tipa kryla (Strength Calculations for Box-Type Wing Structures) Moscow, Oborongiz, 1960. 311 p.
Errata slip inserted. 1,600 copies printed.

Reviewer: V.F. Kiselev, Candidate of Technical Sciences, Docent; Ed.: B.V. Zaslavskiy, Candidate of Technical Sciences, Docent; Ed. of Publishing House: M.F. Bogomolova; Tech. Ed.: N.A. Pukhlikova; Managing Ed.: S.D. Krasil'nikov, Engineer.

PURPOSE: This book is intended for engineers in design offices, scientific workers, aspirants, and students studying strength calculations for aircraft constructions.

COVERAGE: The book discusses the bimoment theory of plane deformations and general methods of calculating the strength of box-type wing shells on aircraft. The variational method of V.Z. Vlasov for the solution of box-wing structures is explained. A new statement is made of the solution of complex boundary-value

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Strength Calculations for Box-Type Wing Structures

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problems in the calculation of shells of one-cell and multicell cross sections with direct and oblique junctions and with the elasticity of the wing ribs and junction taken into account. A method for selecting spatial approximating functions of plane deformation, which can be used for the solution of other problems is given. The effect of plane deformations and the construction of the junction on the concentration of local stresses is studied in detail. Asymptotic formulas for determining normal stresses in the junction and in neighboring sections are derived. The author mentions that in 1943 R.A. Adadurov found an exact solution for a one-cell cylindrical shell. This solution takes the constraint of deformation into account. It is further stated that Yu.G. Odinokov formulated an exact solution of the problems of constrained torsion and bending of a prismatic beam of arbitrary form under arbitrary load and boundary conditions. There are 7 references: 6 Soviet and 1 English.

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Moscow, 27 Jun - 3 July '50.

201. A. N. Il'yushin (Moscow). An experimental study of the
mechanical properties of ultrathin metallic films under
tension, compression, torsion, and lateral
pressures.
202. Yu. S. Slobodchikov (Chernogorsk). Variational methods in the theory
of elasticity.
203. Yu. A. Belykh (Moscow). The stability of motions of solids -
the magnetic theory for solids and its inverse.
204. Yu. A. Belykh (Moscow). A comparative approach to a
variational method in the mechanics of a circular plate under
uniformly distributed loads.
205. Yu. A. Belykh (Moscow). The determination of the defor-
mations of a circular plate.
206. Yu. A. Belykh (Moscow). A theory of motions
of thin plates of shells.
207. Yu. A. Belykh (Moscow). Some problems in the theory of
elastic stability.
208. Yu. A. Belykh (Moscow). Distribution of motions at the
edges of a slightly compressed rectangular plate under gradually
increasing pressure.
209. Yu. A. Belykh (Moscow). Some dynamical problems of
elasticity.
210. Yu. A. Belykh (Moscow). Investigation of the dynamic behavior
of slender cylindrical structures in vibrations.
211. Yu. A. Belykh (Moscow). A critical (crossover) problem of the
theory of vibrations.
212. Yu. A. Belykh (Moscow). A critical (crossover) problem of the
theory of vibrations.
213. Yu. A. Belykh (Moscow). Complete separation of wave
numbers.
214. Yu. A. Belykh (Moscow). Stability of the periodic plate
oscillations.
215. Yu. A. Belykh (Moscow). The theory of electroplating and its
application.
216. Yu. A. Belykh (Moscow). Two-dimensional problems in the theory
of stability of homogeneous and heterogeneous shells.
217. Yu. A. Belykh (Moscow). The state of stress in a deformed
thin-walled shell.
218. Yu. A. Belykh (Moscow). A nonlinear theory for a
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221. Yu. A. Belykh (Moscow). The problem of structural design.
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222. Yu. A. Belykh (Moscow). Application of the
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uniformly distributed loads.
223. Yu. A. Belykh (Moscow). On the axisymmetric problem on the
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226. Yu. A. Belykh (Moscow). Free and forced vibrations of
thin-walled shells under various types of loads.
227. Yu. A. Belykh (Moscow). Characteristics and applications
of the finite difference method in the theory of shells.
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problems in the theory of shells.

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Monograph

UR/

Obraztsov, Ivan Filippovich

Variational methods of designing the three-dimensional thin-walled aircraft structures (Variatsionnyye metody rascheta tonkostenniykh aviationskih prostranstvennykh konstruktsiy) Moscow. Izd-vo "Mashinostroyeniye", 1966. 391 p. illus., biblio. Errata slip inserted. 3000 copies printed.

TOPIC TAGS: aeronautic engineering, stress analysis, airframe component, aircraft wing, aircraft fuselage

PURPOSE AND COVERAGE: This book sets forth variational methods for designing thin-walled structures such as wings and fuselages. Problems involving the design of shells of straight, swept, delta, and tapered wings are considered, with distortion of sections under various conditions taken into account. Smoothing algorithms and flow charts which permit the use of computers for designing multicell closed structures are presented. This book is intended for scientists, design engineers, and stress analysts; it may also be useful to students in higher aviation institutes.

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kand. tekhn. nauk; KRIVOSHEY, B.Z., inzh.; POPOV, O.V., star.
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